What can students learn by exploring what appears to be the earth’s largest underground classroom? Quite a bit, say the folks at Barren County’s Hiseville Elementary School. And teachers are learning, too.

That’s what Byron Jeffries envisioned. While serving as the school’s principal (he became superintendent of Metcalfe County Public Schools this year), Jeffries approached officials at nearby Mammoth Cave National Park about using the park as an outdoor classroom for Hiseville’s 280 P-6 students. The result: a true outdoor classroom and a continuing partnership between the school and the park.

For years, the park’s environmental education staff has worked with teachers in the 10-county Barren River Area Development District to educate students about groundwater problems in the watershed. Generations of students from schools throughout the state have taken public tours of the caves.

“However,” said Mammoth Cave education coordinator Sharon Ganci, “this is the first time the park has been used by an entire school as an outdoor classroom on a continuing basis.”

Ganci and her staff sat down last fall with the Hiseville faculty to plan activities at the park around units of study for each grade. As a result of the formal agreement crafted by school and park officials, park rangers are training Hiseville teachers to use the 53,000-acre park for science, mathematics and some arts-related curriculum activities.

“Eventually, teachers will be doing a lot of the outside activities on their own,” said Ganci. Rangers will stay involved in all cave-related activities.

“Students study more than karst typography when they’re at the park,” said former principal Jeffries. Each grade has a theme of study. Entry-level primary students learn about trees, plants and animals; 4th-graders study soil, water and Kentucky history; 6th-graders explore ecosystems and karst typography. Each grade makes several day trips to the park during the school year. In the spring, 6th-graders stay overnight.

At the park, “they’re learning things they don’t get to deal with in books or in the classroom, and they want to do more,” said Debra Spillman, 6th-grade teacher and school coordinator for activities at the park.

Teachers note that students return to their classrooms using terms or applying concepts they’ve learned at the park to other subject areas. In the arts, for example, 5th-graders produced artwork and poetry that went on public exhibit at the park, and primary students made caves out of modeling clay and sugar cubes to demonstrate how water and erosion affect the underground structure. A cave lantern tour gave 4th-graders a glimpse of Kentucky history through primitive cave drawings and Indian cane torches used more than 100 years ago.

Writing assignments are generated as students find their way around a section of the park using maps and compasses. Mathematics concepts “sneak up” on students as they talk about the number and categorize the types of “critters” they find in a drop of water under the microscope.

After learning about Hiseville’s agreement, two other schools — Park City Elementary (Barren County) and North Metcalfe Elementary — asked for and received permission to use the park as an outdoor classroom. With these partnerships working so well, the park staff is looking forward to partnerships with other schools in the area development district.

“This has been a really good experience for the school and for us at Mammoth Cave,” said Ganci. “What we’re striving to do is get the students to feel ownership of the park. We want them to feel like it’s their place so that when they’re older they’ll want to help protect it.”

For more information about this partnership’s impact on learning, phone Debra Spillman at Hiseville Elementary, (502) 453-2611, or fax (502) 453-2612.
Commissioner’s Comment

By Wilmer S. Cody, Commissioner of Education

As a Tool for Classroom Teaching and Daily Learning, the Arts Work!

Early in this decade, when Kentucky redefined public education, citizens decided what they wanted students to know and be able to do by the time they completed high school. A cross section of Kentucky’s population determined that an “adequate education” must include, among other things, “a sufficient grounding in the arts to enable each student to appreciate his or her cultural and historical heritage.”

This demand for arts education coincided with a national push to make the arts an integral part of education. In 1992, a National Conference of State Legislatures study emphasized the importance of such integration. The Goals 2000: Educate America Act recognizes the arts as part of the core curriculum. In the Improving America’s School Act of 1994, Congress reinforced the importance of the arts in relation to other subjects and as essential subjects in their own right.

Why is the nation focused on the arts in education? Sound research confirms the power of the arts in the learning process (see box for examples). A vast body of data substantiates what many teachers already know from experience: as a teaching tool, as a basis for integrated instruction of the academic basics, as a strategy for reaching and engaging all students, the arts work.

That is why Kentucky’s academic expectations include experiences in the arts, not with an eye toward making every student a distinguished artist, but to provide visual and performing arts experiences that enable students to learn and express what they know and think. It is why Kentucky’s annual assessment of student and school performance includes arts and humanities test items. Without a presence in the state assessment, the arts and humanities would still be “curricular icing.” It is also why, starting with the Class of 2002, Kentucky will require at least one credit in the history and appreciation of the arts for every high school graduate. At least 30 of the 50 states require arts education.

Arts and humanities education is not supplementary. It is as basic as science, mathematics, language arts and social studies. Integrating the arts and humanities into all subjects supports learning for all students. Teachers who are not making the arts part of their instruction are, in effect, ignoring three of the seven multiple intelligences.* While they may still find ways to reach students who learn through movement, music and what they see, the job becomes much harder and more time-consuming.

All teachers — not only the arts specialists — can benefit by integrating the arts and humanities in their instructional strategies. So can all students. To put arts integration into perspective, consider the words of historian Eugene Ferguson: “Pyramids, cathedrals and rockets exist not because of geometry, theories of structures or thermodynamics, but because they were first a picture — literally a vision — in the minds of those who built them.”

* Harvard psychologist Howard Gardner’s theory of multiple intelligences recognizes that the ability to learn and express learning can be demonstrated in a multitude of ways. Gardner says all people possess at least seven intelligences: linguistic, logical/mathematical, spatial, bodily/kinaesthetic, musical, interpersonal and intrapersonal. In every individual, some of the intelligences — and maybe only one — are more developed than the others. In other words, says Gardner, people learn in different ways.

Research Supports the Arts in Education

- In 1995, students who studied the arts for more than four years scored 59 points higher on the verbal portion of the Scholastic Achievement Test and 44 points higher on the mathematics portion than students with no coursework or experience in the arts. (The College Board, Profile of SAT and Achievement Test Takers, 1995)
- Students improved an average of one to two months in reading for each month they participated in “Learning to Read Through the Arts,” an intensive integrated arts curriculum launched in New York City schools and designated a national model by the National Diffusion Network. (Chapter I Developer/Demonstration Program: Learning to Read Through the Arts, 1992-93; Office of Educational Research, New York City Board of Education, 1993)
- High-risk elementary students with one year in “Different Ways of Knowing,” a program that presents instruction through the arts and other ways to address the different ways students learn, gained 8 percentile points on standardized language arts tests; students with two years in the program gained 16 percentile points. Students not in the program showed no gain in language arts. After three years, students in the program outperformed non-program students in language arts, mathematics, reading and social studies. (Different Ways of Knowing: 1991-94 National Longitudinal Study Final Report, James S. Catterall, 1995)
- The U.S. Labor Secretary’s Commission on Achieving Necessary Skills reports that arts education prepares students to meet employer expectations in these skills: communication, creative thinking, acceptance of individual responsibility, sociability and self-esteem. (Educational Quality of the Workforce National Employer Survey: First Findings, Lisa Lynch and Robert Zemsky, 1995)

“During the past quarter century, literally thousands of school-based programs have demonstrated beyond question that the arts can not only bring coherence to our fragmented academic world, but through the arts, students’ performance in other academic disciplines can be enhanced as well.”

Ernest L. Boyer
President
Carnegie Foundation for the Advancement of Teaching
Celebrate Computer Learning Month

Celebrate the 10th Annual Computer Learning Month during October with activities that will help increase student and community understanding of technology and its importance to learning.

Finding those activities is as easy as accessing http://www.ComputerLearning.org on the World Wide Web. The site, supported by the Computer Learning Foundation, offers information and a variety of services for parents and educators. KETS coordinators also are distributing information to every school technology coordinator.

Computer Learning Month observances include national contests offering big-ticket technology prizes.

“Kentucky schools are doing many activities that could be strong contenders — and winners — in these contests,” said Lydia Wells Sledge, a director in the Kentucky Department of Education’s Office of Education Technology.

For details, contact district technology coordinators or the KETS coordinators at Department of Education regional service centers.

Kentucky’s Assessment System Wins High Marks for Impact on Learning

A National Center for Fair and Open Testing study gives Kentucky’s assessment practices high marks for contributing to improved student learning.

The study ranked testing programs in all 50 states and placed Kentucky’s program in the second of five tiers, a level indicating the need for only “modest” improvements. Also in the second tier were testing systems in Colorado, Connecticut, Maine, Missouri and New Hampshire. Vermont was the only state whose system was ranked in the first tier as a model assessment system. Seven state systems were found to need “some significant improvements,” 17 were rated as needing “many major improvements,” and 16 were placed in the bottom tier as needing a “complete overhaul” to provide support for high-quality teaching and learning.

Three states did not have enough of a system in place for adequate scoring.

The study, “Testing Our Children: A Report Card on State Assessment Systems,” evaluated how state assessment practices measured up against standards detailed in 1995 by the National Forum on Assessment, a coalition of education and civil rights groups. States ranking highest tended to rely on multiple measures of achievement and strong use of portfolios and performance. The study concluded that these systems were more in line with the published standards because they “measure critical thinking, creativity and the ability to use knowledge in real-life situations.” Kentucky, Vermont and Maine were singled out for relying primarily on extended constructed-response, performance and portfolio assessments.

For more information, go to the Web site at http://www.fairtest.org/states/survey.html, or send e-mail to fairtest@aol.com to request details.

Court Rules Local Boards Can Require Students to Take KIRIS Exam

The Kentucky Court of Appeals has upheld a decision handed down last year by a Livingston Circuit Court judge that reinforces the authority of local school boards to require students to take the Kentucky Instructional Results Information System (KIRIS) test. The Aug. 15 decision of the higher court also affirms the circuit court’s decision regarding the constitutional validity of the exam but reverses the lower court’s order that allowed public disclosure of KIRIS exam items.

Both Kentucky courts found the testing requirement does not violate the constitutional rights of parents or students and that it does not violate certain federal laws. The high court agreed with the lower court ruling that the test questions do not infringe on the religious beliefs and right to free speech, violate parental rights or invade the privacy of the family that brought suit.

Since 1994 the Livingston County School Board has had a policy requiring students in the school system to take the KIRIS test to be promoted to the next grade or to graduate. The parents of a high school senior and an 8th-grader sued the Livingston County School Board later that year to keep their children from taking tests required by the Kentucky Education Reform Act.

Showcases Provide Previews of New Instructional Resources

A series of mathematics and computer education showcases will give P-12 teachers, administrators, university personnel and parents an opportunity to preview state-adopted textbooks and instructional materials as well as supplementary printed and electronic resources. The regional showcases are scheduled to occur in January, February and March. Each will include a session on guidelines for selecting and purchasing textbooks and materials.

The showcases will take place after school hours. Watch for specific dates and locations in Kentucky Teacher and regional service center newsletters or contact instructional resources consultants Carol Tuning or Jay Roberts at (502) 564-2106. Send e-mail inquiries to ctuning@kde.state.ky.us or jroberts@kde.state.ky.us on the Internet.

Arts Council Event to Feature Sessions for Teachers

The Kentucky Arts Council’s fourth annual conference, Nov. 13-15 in Bowling Green, will include several sessions for teachers. These sessions — all on Saturday, Nov. 15 — will demonstrate how the arts can have a positive impact on instruction.

• Artists and experienced teachers will discuss successful school residencies.

• Veteran teacher Sharon Wuorenmaa will illustrate how to make the arts part of the curriculum.

• Greg Hansen of the Folklife Institute will present a hands-on session on using local folklife resources in schools.

• Teachers and artists will discuss how to approach schools with ideas for meeting arts programming needs.

The registration deadline is Oct. 31. For registration information, contact the Kentucky Arts Council toll free at (888) 833-ARTS (2787).
Web Publishing With a Purpose Benefits Student Learning

By Faun S. Fishback
Kentucky Department of Education

Whether they design projects especially for an Internet site or reformat classroom assignments for Web viewing, students can meet several of Kentucky’s learning goals and academic expectations when they use Web publishing technology, say teachers who work with projects in two Kentucky school districts.

Students at West Jessamine Middle School have developed a page titled Kentucky Community Quilt on the school’s Web site. Ginger Williams, the school’s technology coordinator, says the “quilt” page invites other Kentucky middle schools to provide links to the page offering cultural and historical information about their communities.

At Camden Station Elementary School in Oldham County, P-5 students have used the Internet to give an Australian pen pal a virtual tour of the school and to share writing, research and art assignments with the world, said Sue McHargue, library media specialist.

Technology projects like these guide students to a number of important skills:

• solving problems — “Students have to determine why their pages don’t pop up on the Web browser, why the graphic doesn’t appear or why the link to another page doesn’t work, and then correct the problem,” said Williams.

• gaining organizational skills — Students must research topics, conduct interviews, complete the project and then prepare it for placement on the Web.

• communicating clearly — “Thinking about language that is clear to a wide variety of readers is suddenly much more important when an Australian pen pal or an editor from England is reading your work!” said McHargue.

• thinking creatively and graphically — Students must decide how they want to display their information in the most eye-catching design.

Web publishing also is a good method to involve multiple intelligences in a classroom (see page 2 in this issue and the September 1997 issue of Kentucky Teacher). Twenty-five pages of the Kentucky Community Quilt were developed during a Jessamine County summer school program for at-risk students. “One mother told us it was the only class her son had come home excited about in eight years of school,” said Williams.

McHargue said she hopes teachers and students will view publishing via the Web as another tool to help them refine the writing, art, music, science, social studies and all other subjects that go on daily. “I would like the Web pages to reflect the different products created by students with strengths in various areas of the multiple intelligences,” she said.

Both Williams and McHargue notice an added benefit of Web publishing: Students seem to learn more about their place in the global community and become more aware of communication among other cultures with which they share the world.

For more information, contact McHargue at smchargu@oldham.k12.ky.us or Williams at gwilliam@jessaminek12.ky.us on the Internet.

Editor’s Note: Visit the Web sites listed on this page by going to the Kentucky Department of Education’s homepage (http://www.kde.state.ky.us) or directly to these addresses:

• http://www.jessamine.k12.ky.us
• http://www.louisville.edu/k-12/camden

How to Publish With a Purpose

Just because you can publish doesn’t mean you should. There is more to Web publishing than just learning the HTML language and posting to a Web site, says Jana Hickey, a technology program consultant for the Kentucky Department of Education.

Teachers need to advocate student Web publishing that encourages an exchange of ideas and enhances core content activities in the classroom. (See accompanying story for two examples of such sites.)

Borrowing from education researchers Marlene Scardamalia and Carl Bereiter’s work on knowledge building, Hickey suggests teachers need to move students to become involved in knowledge discourse on the Web. To accomplish this, students need to move through three developmental stages: knowledge acquisition, knowledge distribution and, ultimately, knowledge building.

Students begin by locating information on the Web to use in their work (knowledge acquisition). When students post their work on the Web, they become involved in knowledge distribution and are contributing to the Web. They join the knowledge-building community of the Web when the knowledge they are distributing is used to build new knowledge through global collaboration.

“Students need to understand their roles as contributors to the knowledge-building community that the Web represents,” she said. “What students post on the Web should have informational value to others who read it. And, ultimately, their information should be a building block to larger, new ideas.”

For information about publishing with a purpose, contact your regional KETS coordinator or Hickey at jhickey@kde.state.ky.us via e-mail. For more information on knowledge building, contact Bill Desanctis at bdesanc1@jefferson.k12.ky.us or Steve Swan at sswan1@jefferson.k12.ky.us on the Internet.
By Fran Salyers
Kentucky Department of Education

Here you were just getting really comfortable with new ways of teaching mathematics, science, language arts, social studies — whatever your area of expertise — and you hear you’re supposed to teach the arts. The arts! Not instead of your subject area, but in addition to it!

True, Kentucky’s academic expectations include arts-related skills. And true, the state assessments of student and school performance include arts-related questions. But must mathematics and science teachers become experts in painting and classical music?

Not at all. What’s important, says a new document from the Department of Education, is that “generalists,” in this case meaning teachers not trained or certified in the arts, teach in a way that helps students gain the knowledge and skills they need to participate in, respond to and appreciate the arts. The document, “Core Content for Arts and Humanities Assessment,” provides guidance for doing just that. Its content descriptions, in tandem with the state’s academic expectations and curriculum framework, form a foundation for local decisions on what and how to teach in the arts and humanities. (For a discussion of “Why teach the arts?” see Page 2.)

How do you, a generalist, integrate the arts into everyday instruction? Draw on the expertise of arts specialists. The matrix on this page, adapted from one in the new document, defines the roles of the generalist and the arts specialist in making arts education more accessible to all students while raising student achievement levels. (For more about that, see Page 2.)

While there can’t be an arts specialist in every school, arts resources are everywhere. Many are mentioned in the following eight pages, along with reports from teachers who have found effective ways to integrate the arts and humanities into all areas of instruction. As you read, you may find what these teachers have found: There’s a good chance you know more about the arts and humanities than you think you know! And unlike the arts specialist, who sees each student only a few minutes each week, you’re in a position to make arts and humanities a part of everyday learning, just as they’re a part of everyday life.

For more about “Core Content for Arts and Humanities Assessment,” see Pages 8 and 9 in this issue. The document is available at http://www.kde.state.ky.us/caa/cad.html on the World Wide Web. It is also included in Kentucky’s complete “Core Content for Assessment,” available for $12 from the Department of Education Book Store. Phone Windy Newton at (502) 564-3421 or e-mail wnewton@kde.state.ky.us for details. Phone Jim Fields at (502) 564-2106 or e-mail jfields@kde.state.ky.us for information about the new document’s contents and applications.

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Collaboration for Arts Education
The Roles of Specialists and Generalists

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<th>Teaching In the Arts</th>
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<th>Generalist Teacher</th>
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<td>(focus on creating and performing)</td>
<td>Plan Instruction; Deliver Instruction</td>
<td>Reinforce and Assist With Curriculum Planning</td>
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<td>(emphasis on responding to the arts in relation to a specific knowledge base)</td>
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<td>Collaborative Planning and Delivery</td>
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<td>(an integrated — humanities — approach to help students gain appreciation for the arts through historical and cultural influences</td>
<td>Reinforce and Assist With Curriculum Planning</td>
<td>Plan Instruction; Deliver Instruction</td>
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Teachers Share Experiences About Integrating Arts and Humanities

Compiled By Faun S. Fishback
Kentucky Department of Education

A recent TV commercial shows a rather scruffy man staring at the “Roofing” sign on the side of his vehicle and then slapping a new sign over it. He looks at the camera and proudly says, “Today we do windows!”

It’s a catchy phrase, and sometimes the approach Kentucky teachers take. “Today we do portfolios. Tomorrow we’ll talk about art. Friday be prepared to study science.”

However, more teachers are finding that an interdisciplinary approach to teaching gives their students a better understanding and appreciation of what’s being taught because they can relate it to something else in their course of studies. On these pages are stories about teachers who are guided by Kentucky’s core concepts, learning goals and academic expectations. Their theme: “Today we do it all!”

Collaboration Can Make History Come Alive

Would Abraham Lincoln have hung his clothes on coat hangers in the White House?

That’s just one of the questions Jim Baker asked of his American History students at Graves County High School when they discussed “10 Things Abraham Lincoln Couldn’t Do.”

Trivia to some people, but to Baker it is a way to paint a picture of life in past times that makes students better understand history. Now the grant coordinator for Graves County Public Schools, Baker reflects on how he not only drew from the arts and humanities to teach history but collaborated with other teachers to provide an integrated curriculum for students.

In studying the American Revolution, Baker had students examine paintings of the period and decide whether portraits were more flattering than accurate depictions. They learned songs of the Civil War and talked about which songs were popular in the North, which were popular in the South and why.

Collaboration with a biology teacher during a study of the Romanoff Dynasty gave students information about how the hereditary disease hemophilia caused the end of the dynasty and how world politics were affected. An agriculture teacher collaborated on studies of the Depression and how it affected occupations such as veterinary medicine.

“You have to make certain students know these things happened to real people,” said Baker. “When you show them something they can identify with, it sticks with students.”

To answer the initial question: Lincoln could have used coat hangers. They were invented during the Civil War.

For more information, call Baker at (502) 247-7645.

Arts and Science ‘Marriage’ Helps Primary Students

Tim Sears, a primary teacher at Anchorage School (Anchorage Independent) with a background in science and mathematics, may have an inside track on integrating arts and humanities in the curriculum. His wife, Ellen, is the school’s art teacher.

While he mentions the fact with a smile, the Searses are serious about their common professional goal of giving students an education that includes all disciplines. As teacher of a multi-age primary class, he finds art a good way for beginning writers to express themselves. “What students can’t yet write, they might be able to draw or create,” he said.

In a unit titled “Into the Woods,” students studied different patterns in nature. They went on walking tours of the school to look for branching, spirals, overlaps and types of camouflage. In art class, they discussed those patterns in man-made objects.

Each student recreated the patterns on half-dollar-size clay disks. After students glazed the disks in different colors, they had a collection they could count, classify by pattern and color, and chart, diagram or graph, Tim Sears said. Assessment for the activity was to see if the students could recognize and reproduce the patterns they studied.

His students also made a quilt in their study of wetlands, created a fold-out book of layers of the forest and took a museum trip to study architecture. “Our projects are not one-day things, and with so many learning styles in the classroom, this gives every student a chance to tap into the activity and be successful,” he said.

Ellen Sears, who also has taught mathematics, sees each student less than an hour a week, so she’s excited about working with teachers on using art in their classes. “I’m tickled to death to share the connections,” she said.

Phone Tim or Ellen Sears at (502) 254-8927 or e-mail at tsears@anchorage.k12.ky.us or esears@anchorage.k12.ky.us on the Internet.

Arts and Science ‘Marriage’ Helps Primary Students

Collaboration Can Make History Come Alive

October 1997 Kentucky Teacher
Excerpts reprinted with permission, Danville Advocate-Messenger, Herb Brock, staff writer.

“PE used to be basic exercises, running, throwing, basketball drills, tossing the dodge ball around — typical things like that,” said Greg Schepman, physical education instructor at Boyle County Middle School and assistant basketball coach at the high school. “But now we’re doing pirouettes as often as pushups. We’re doing everything from old-fashioned dodge ball to classical dance.”...

[Class] started with Appalachian dances, including a reel called “Goodbye Girls, Going to Boston.” Schepman reminded the class that mountain people considered it “sinful” to dance, so they called their gyrations “games” and “plays.”

The class went on to perform ballet, square dances and waltzes and then watched a videotape showing an African-American combination dance and game. With each dance came a little history lesson from Schepman, like the one about the African-American dance called “Little Johnny Brown,” which features young people trying to turn square scarves into triangles.

“...This is more than a dance. It’s a story and one told in the dialect of the people,” Schepman said. “It’s about how a young boy’s parents are trying to teach him the virtue of honesty.”

Honesty is something Schepman uses in telling why his physical education class is now more than just pushups, passes and “puttering around with a ball.” While he strongly approves of efforts to pump new and different activities into physical education and use it as yet another vehicle to broaden students’ cultural horizons, he also acknowledges that improving PE is directly tied to improving scores on the Kentucky Instructional Results Information System (KIRIS) tests. ...

“In the arts and humanities section of KIRIS, they ask students to compare dances and to say how they represent different cultures. That’s now what we’re trying to teach our kids in PE,” said Schepman.

Call Schepman at (606) 236-4212.

**Distance Learning Brings Arts Into Classrooms**

Last year’s visual arts class at Nicholas County High School took a trip to Louisville’s Humana building, visited an artist’s studio and discussed music with George Zack, director of the Lexington Symphony, all without leaving their desks. The class was involved in distance learning as part of Kentucky Educational Television’s “Humanities through the Arts,” which provides daily lessons via the Star Channels.

“The TV course is a great resource,” said Elizabeth Johnson, visual arts teacher at the school. For her students it regularly provides interesting classroom visitors; for her a network with other teachers who are facilitating the course.

“The class is designed to meet the needs of different students at a variety of ability levels,” she explained. Students learn that they don’t have to draw or play an instrument to appreciate the arts. They discover that humanities touches on a wide area of subjects — the visual arts, music, drama, dance as well as music, philosophy, history and religion. “The course strives to have students learn to make connections between the past and present,” she added.

Periodically, students are asked to call into KET studios to discuss topics, or they are given class time to do research via KET’s “Humanities through the Arts” Web site. Through the site’s Student Forum, they voice their opinions and read responses from other schools.

For more information about the KET course, visit the Web site at http://www.dl.ket.org, contact Liz Coogle toll free at (800) 333-9764, or e-mail lcoogle@ket.org on the Internet. Call Elizabeth Johnson at (606) 289-3780.

**Professional Development Can Open Eyes to Arts**

Jan Burbrink, a 6th-grade science teacher at Frost Middle School in Jefferson County, attended this year’s Kentucky Institute for Arts in Education, sponsored by the Kentucky Center for the Arts. Here are some of her thoughts after completing the professional development activity:

“I never thought of myself as an artist. ... That is one way I changed as a result of the Institute. I now consider myself an artist. ...”

“I did not, however, see how the arts could help me teach content. After attending the Institute, I see that the arts can assist me in teaching important skills necessary to learn and think. ... In science class, students are asked to think critically, so the arts can help them develop those skills in a fun and creative way. ...”

“I will be always mindful of ways I can incorporate the arts into my science curriculum. I am thinking about letting my students use more art and movement. For example, I could ask students to be a particular animal or plant and write a monologue based on information they have learned or found in research. I could ask them in small groups to show the layers of the rainforest using their bodies. I could ask them to illustrate as well as write the procedure for a science experiment. These are things I would not even have thought of before now.”

For more information about the Institute for Arts in Education, contact Debbie Shannon, Kentucky Center for the Arts, at (502) 562-0149. Call Burbrink at (502) 485-8256.
Creating ... Performing ... Responding

By Sharon Crouch Farmer
Kentucky Department of Education

The framework of Kentucky’s new “Core Content for Arts and Humanities Assessment” is based on Kentucky’s learning goals and academic expectations as well as the National Standards for Arts Education. Using this framework, schools and districts are provided the opportunity to determine their own arts and humanities curriculum based on needs, parental and community expectations and professional standards.

The document includes program rationales for each medium at each grade level; components of skills and knowledge; definitions of those areas that could, in the future, be designated for assessment; a humanities reference chart and a matrix outlining responsibilities in collaborative arts education.

According to Jim Fields, a state arts and humanities consultant, the version of this publication now available differs greatly from a draft version sent out last year. While the previous document reflected the emphasis placed on skills and knowledge; definitions of those areas that could, in the future, be designated for assessment; a humanities reference chart and a matrix outlining responsibilities in collaborative arts education.

A matrix in the introduction shows the clear, linear progression from creating to performing to responding and, finally, appreciating the arts. “A Venn diagram illustrates the relationship of the arts and humanities to social studies,” Fields said. “Reference charts are more comprehensive, and a glossary for each of the arts will be added.”

The design and use of the document are also addressed in the document’s introduction, and a separate introduction has been added for each discipline at each grade level. According to Fields, the new document design is more streamlined and concise. “For instance,” he said, “we indicate on each sample page that students are expected to apply skills from the previous grade level, but we don’t reprint those skills verbatim on subsequent pages.”

“The Core Content for Arts and Humanities Assessment” is available on the Internet through the Department of Education home page (http://www.kde.state.ky.us). See Page 5 for information on how to order printed copies.

KRS 158.645 stipulates that students have “sufficient grounding in the arts to...”

An Example

For dance and music, creating, performing assessment statements are used for 8th- and 11th-graders. The responding category falls into the responding category and falls into the responding category.

This chart integrates assessment statements by category and across grade levels. Goals 1 and 2 of Kentucky’s Learning Goals are...
to enable each student to appreciate his or her cultural and historical heritage.”

A section from “The Core Content for Arts and Humanities Assessment”

Performing and responding follow a distinct yet natural learning progression. For theater and visual arts, most creating and performing is integrated. Literature is already a component of the reading assessment but is included in the core content document to provide the natural progression toward appreciation. Assessment in the humanities, which encompasses the relationships among the arts, further leads to an appreciation of all of the arts.

Statements from the core content document into a matrix to show the relationship of the arts to humanities, achievement expectations, and the natural progression toward appreciation. All assessment statements are based on specific knowledge and skills from Goals and Academic Expectations (1.12-1.15 and 2.22-2.26).

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<thead>
<tr>
<th>CREATING 2.22</th>
<th>PERFORMING 2.22</th>
<th>RESPONDING 2.23-2.26</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create movement ideas which could compose a dance using locomotor-locomotor movement. (2.22)</td>
<td>Perform [EPE] a folk dance. (2.22, 2.25)</td>
<td>Identify and recognize elements of space, time, and force. (1.15, 2.22)</td>
</tr>
<tr>
<td>Write melodic embellishments and on given melodies. [PE] (2.22)</td>
<td>Sing or play [EPE] a given piece of music by reading music notation (with practice). (2.22)</td>
<td>Interpret music notation and symbols. (2.23)</td>
</tr>
<tr>
<td>Integrate appropriate scenery, properties, lighting, sound, costumes, and makeup into a scene. (2.22, 2.23)</td>
<td></td>
<td>Identify and compare similar characters and situations in stories and dramas from and about Greek, Elizabethan and Modern cultures, and discuss how theater reflects life. (2.22, 2.23, 2.24)</td>
</tr>
<tr>
<td>Understand, select, and use the elements of art and the principles of design to make visual arts, performing behaviors are found in the creating category. (2.22)</td>
<td></td>
<td>Describe visual characteristics of works of art and respond to them using visual arts terminology. (2.23)</td>
</tr>
<tr>
<td>Illustrate how literary works reflect periods, styles, and cultures which shaped them. (1.2, 2.24, 2.25, 2.26)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This matrix was adapted from the National Assessment for Education Progress Framework.
By Sharon Crouch Farmer
Kentucky Department of Education

You’ve read the core content for arts and humanities assessment. You know what your responsibilities are. You see how the content can overlap with other disciplines. But you need help devising activities that are feasible and meaningful.

Help is already at your fingertips. Check with your principal or the school librarian and dust off his or her copy of “Transformations: Kentucky’s Curriculum Framework.” This publication, first distributed in 1993 and revised in 1995, holds a key for teachers as they work to develop activities that help students approach and appreciate the arts. Beginning on page 137 are sample teaching strategies, activities, cross-curricular applications and explanations of expectations for each grade level.

Here’s a peek at the resources those pages provide and how some teachers put those strategies and activities to work in their classrooms.

Applications Across the Curriculum

Variations on a theme: Fairy Tales

Language Arts
• Put on a production of a fairy tale from another country, PE, P

Science
• Design a diorama of the set for the fairy tale. PE, P

Mathematics
• Put the 3-dimensional diorama design on grid paper to use in laying out the actual set. PE

Social Studies
• Choose music from the country of the fairy tale to accompany the production. PE, OE

Practical Living
• Design the set and costumes for the production of the fairy tale. PE, P

Vocational Education
• Prepare a playbill for the production. PE, OE, P

AE 2.24 Students have knowledge of major works of art, music, and literature and appreciate creativity and the contributions of the arts and humanities.

Core Concept: Aesthetics

Sample Middle school activities

• Explore the arts of a national or global historical period and communicate the relationships between and among significant architecture, dance, music, painting and drama. OE, P

• Choose an artwork you do not like. Research the artist, period, style and purpose of the work. Present your research and any changes to your opinion that occurred during your research. PE, OE, P

• Make a presentation about how nomadic or homeless people use the arts. PE, OE

AE 2.25 In the products they make and the performances they present, students show that they understand how time, place, and society influence the arts and humanities such as languages, literature, and history.

Reflections

To develop a deep understanding and a real sense of their cultural heritage, students must investigate the influences of time, place, personality, and society on the arts and humanities.

Meaningful activities that expose students to their cultural heritage encompass all the art forms: plays, literature, poetry, paintings, sculptures, dances, songs, foods, and native customs. Students discover their heritage through the artifacts and folk tales of their culture and translate these into personal expression through their own artwork.

Whatever you can do to import cultural heritage to your students helps them to know their roots, compare and contrast their heritage to others, and develop a keen appreciation of the legacy of past cultures.

The integrated English, social studies, mathematics and science curricula at Seneca High Magnet Career Academy (Jefferson County) are well suited to the Renaissance Faire produced by sophomore students each January. Study of the language, society and processes of that period is centered around the re-creation of a Renaissance village, complete with music, dance, food, costumes and theater. All students participate in mask making, juggling and dance. Otherwise, participation follows individual interests, such as chess, puppetry, soap making, spinning and weaving. Students research, write, design, build, create, solve problems, make decisions, budget, market and perform. Two performances are offered, one for other students and one for parents and community.

To find out more, contact Sandy Kissling, program resource teacher, or Orville Williams, Renaissance Faire coordinator, at (502) 485-8323.

In Rita Payne’s primary class at Berea Community Elementary School (Berea Independent), students spent five weeks last year using the framework of a fairy tale to write a play for their academic unit on Appalachia. They told the story of Rapunzel using Appalachian dialect and building on the region’s culture, history and social, economic and environmental issues. The main character was renamed Rampanella after leek-like vegetables found in the woods of Appalachia. The script was written in reading and writing practice groups using research from family, community and library resources. The students worked together to cast each other in appropriate roles, design the set, find the costumes and produce the play. They made decisions, solved problems, negotiated compromises.

Contact Rita Payne at Berea Community Elementary School at (606) 986-4911.
Integrating arts and humanities into your classroom curriculum isn’t as simple as singing about spiders in science class, but it’s not so hard that it is a scary venture. That’s the message Jimmie Dee Kelley delivers, whether working with teachers in her home district of Hardin County or conducting professional development workshops for teachers throughout the state.

“Classroom teachers tend to leave arts to the arts specialists because they are not arts specialists themselves,” the former music teacher said. She advises teachers to do what they can do with the arts knowledge they have and to work closely with the arts specialists in their district.

“You need to connect with a specialist if you don’t know a lot about the arts,” Kelley said. “Students achieve best when exposed to an arts specialist if you don’t know a lot about the arts.”

Kelley advises teachers to do what they can do with the arts knowledge they have and to work closely with the arts specialists in their district.

For example, she points out, the physical education teacher can help find dances that coincide with units of study. The art teacher can suggest sculptors, paintings or activities; the music teacher can recommend composers.

Many teachers don’t know where to begin to integrate arts and humanities in curriculum. Kelley advises keeping two goals in mind:

1. Students need to know the elements of music, art, dance and drama for the annual KIRIS assessment.
2. To meet the first goal, students need to develop the specific vocabularies with which to discuss music, art, dance and drama. Don’t assume, for example, that a middle school student will know what a spiritual is. Kelley has created a word list, glossary and assessment guide for each of the four arts disciplines.

Kelley shares these thoughts:

- True integration of arts and humanities occurs when the integrity of all disciplines is maintained. “You truly need to be teaching content about each discipline to teach ‘through the arts,’” Kelley said. “You can use a song to teach about spiders in science class, but you also need to use the song to teach students something about music — rhythm, melody.”
- Look first for logical areas in curriculum to include studies of arts and humanities. Writing and different music compositions can be discussed in a social studies unit on the Civil War by listening to the music of the period. Movement, force and space can be explored through square and folk dances of the mid-1800s, and artists’ media can be discovered by looking at artwork of the time.
- Start comparison skills at the obvious. Comparing broad elements and then narrowing the focus stimulates critical thinking skills. For example, compare folk music with classical before leading students to finer discernment between folk and bluegrass.
- Design down to deliver up. Look at what students need to know when they exit high school and decide what they must learn in elementary and middle school to reach that level of knowledge. A high school student can’t be expected to know the positions of colors on the color wheel if they weren’t taught about the color wheel in elementary or middle school.

Kelley says that studying the arts in relation to history, literature, science and mathematics stimulates critical thinking skills while teaching an appreciation of cultural diversity, developing originality and nurturing imagination. “Arts and humanities is the only core content area that teaches to the whole student, emotionally as well as intellectually,” said Kelley. “It also helps teachers reach students who are musical, bodily/kinesthetic and spatial learners, three of the major multiple intelligences.” (For more information about multiple intelligences, see Page 2 in this issue; also see the September 1997 issue of Kentucky Teacher or consult with KETS coordinators in the Department of Education regional service centers.)

**Rubrics Help Teachers and Guide Students**

Rubrics are not unique to the arts and humanities. However, Jimmie Dee Kelley is a firm believer that rubrics for arts and humanities assignments are the best way to get the most out of students. Why?

“A rubric outlines what is expected of students and gives them guides on how to get there,” she said. Kelley likes to think of the performance levels in a rubric in this manner:

1. OOPS — The student has minimal understanding of content; is off target more than on target.
2. On the Way — The student knows content, but has trouble staying on track.
3. Right on Track — The student knows content and uses correct terminology to discuss content.
4. WOW — The student is consistent and clear in connections with content, exhibits in-depth insight and makes links to other disciplines.
A Message From the Secretary
Education, Arts and Humanities Cabinet

While the name of our cabinet is self-explanatory, I wish I could find a way to punctuate or express the name in a way that better communicates the strong bond between the word “education” and the terms “arts” and “humanities.” All of the agencies in the cabinet are engaged in education, and they all share the goal of helping students learn and succeed through the arts and humanities.

These pages provide a sampling of the cabinet’s resources and services for educators. Most are collaborative efforts involving several organizations and individuals — including teachers — throughout the state. I encourage you to take advantage of these resources and opportunities. If the help you seek is not listed here, please let me know. We will do our best to locate the kind of support you need.

Roy Peterson
Education, Arts and Humanities Cabinet
300 W. Broadway
Frankfort, KY 40601
(502) 564-0372
e-mail rpeterson@mail.state.ky.us

Kentucky Historical Society
PO Box 1792
Frankfort, KY 40602-1792
(502) 564-3016; fax (502) 564-4701
http://www.state.ky.us/agencies/khs/

This agency offers a variety of services, among them junior historian clubs, museum programs and National History Day for students, plus workshops, resources and grants for teachers. Several new initiatives help link history with the arts and humanities:
• An Educator’s Guide to Kentucky Museums — How programs, exhibits and tours at 154 museums are aligned with education goals. Available on the society’s homepage; on 3.5-inch disk for PC or Mac (one free per teacher); or print format ($7.50). Contact Vicky Middlewarth.

• A Teacher’s Guide to the Festival of Kentucky Folklife — Lesson plans, classroom activities and other resources for incorporating folklife into social studies and arts and humanities units. Contact Loisjoy Ward.

• Resource Center for Heritage Education — Encourages teachers to use community resources to explore cultural heritage. Sponsored jointly by the society and the Kentucky Heritage Council. Contact co-directors Kim Lady Smith at the society or Becky Shipp at the council (listed elsewhere on this page).

• Grants — Resource Center for Heritage Education mini-grants supporting class visits to local historic sites; available in October on a first-come, first-served basis. Apply by March 1998 for grants supporting integration of local resources into the curriculum and collaboration between teachers and local resource people. Contact Betty Fugate.

Kentucky Heritage Council
300 Washington St.
Frankfort, KY 40601
(502) 564-7005
http://state.ky.us/agencies/khc/khchome.htm

• Historic Sites — Information on sites throughout the state; computer printouts by county. Contact Marty Perry.

• “Kentucky Before Boone” — Poster depicting cultural lifestyles of Native Americans in prehistoric times. Contact Dave Pollack.

• Teaching With Historic Places — Bibliography of resources on using the historic constructed environment as a classroom resource. Contact Becky Shipp.

• Resource Center for Heritage Education — See entry under Kentucky Historical Society.

Kentucky Educational Television
600 Cooper Drive
Lexington, KY 40502-2296
(606) 258-7270
http://www.ket.org

KET presents a wealth of instructional and professional development programs devoted to the arts. Coming up is “Arts and Humanities: Integration, Assessment and Course Development,” developed in cooperation with the Department of Education. Here are more examples of the arts programs available. For more information, contact Nancy Carpenter.

• Art On-Air Series — 12 visual arts “how to” programs for upper elementary students and teachers.

• Imagine That — Exercises in role playing, pantomime, storytelling and improvisation.

• Dancing Threads: Community Dances From Africa to Zuni — How to do traditional Appalachian, African-American and Native American dances and games; insight into historical and cultural aspects.

• Humanities Through the Arts — High school distance learning series based on Kentucky’s core content and national standards. Check the KET Web site or contact Liz Coogle at lcoogle@ket.org by phone.

• Professional Development Series — Offered throughout the year by subscription on KET Star Channels. Visit the KET Web site or call KET Professional Development toll-free at (800) 432-0951. See “Channels” on Page 14 for programs scheduled for November and December.

• Evening Programming — Teacher’s guides and other materials support classroom applications of some KET evening programs. Contact KET’s Education Division.

Kentucky Center for the Arts
Arts Education Programs
5 Riverfront Plaza
Louisville, KY 40202-2989
(502) 562-0149
http://www.kca.org

• Arts Education Showcases — Day-long events provide first-hand knowledge of arts education programs. Held each March in eight locations.

• Kentucky Center Express — Helps pay the transportation costs for Kentucky schools to attend performances and programs at the center and center-managed sites.

• Kentucky Institutes for Arts in Education — Two-week summer seminars in Louisville, Murray and Morehead for teachers and others.

• Outreach Youth Arts Festival — Support for arts events for students in eastern Kentucky; sponsored by Paramount Arts Center in Ashland.

• Governor’s School for the Arts — Three-week summer program for talented high school juniors and seniors. Applications for 1998 program due Nov. 29, 1997.

For more information on the center’s Arts in Education programs, contact Debbie Shannon, director of education.

The “Resources” list continues on Page 13.
• A Guide to Arts and Cultural Education Programs and Services in Kentucky — Limited quantities available in print (contact the council); entire document coming soon to the Internet.

• Artists in Residence Program — Places professional artists into schools and communities for four to nine months to demonstrate art forms and share their creativity. Can help initiate or supplement a continuing school arts program. Application deadline is Jan. 22, 1998, for the 1998-99 school year.

• Teacher Incentive Program — Places professional artists into schools for one- or two-week residencies to demonstrate art forms and collaborate with teachers on strategies for integrating the arts into instruction. Apply by Oct. 15, 1997, for residencies between January and May 1998. Apply by March 2, 1998, for residencies between August and December 1998.

• Project Grants — Enable teachers to have artists perform at their schools. Apply by March 31, 1998, for residencies between July 1998 and June 1999.

For more information on these resources, contact John Benjamin, Arts in Education program director (e-mail: johnbenjamin@arts.smag.state.ky.us).

Craft Marketing Program

39 Fountain Place
Frankfort, KY 40601
(502) 564-8076

Because this program sponsors an annual wholesale/retail craft market and other services for artists, the staff is in touch with many craftspeople. Teachers may phone to discuss their needs and request referrals to craftspeople who fit with their instructional plans. Ask about the program’s workshops, too.

Governor’s Scholars Program

1024 Capital Center Drive
Frankfort, KY 40601
(502) 573-1555

This five-week residential summer program provides challenging, non-traditional educational and personal growth experiences for outstanding rising seniors. A rigorous academic schedule balances the sciences, mathematics, humanities and the arts with a variety of cocurricular activities. Contact Kim Sisk.

Commission on the Deaf and Hard of Hearing

632 Versailles Road
Frankfort, KY 40601
(502) 573-2604
(both numbers V/TDD Accessible)
http://www.state.ky.us/agencies/kcdhh

The annual DeaFestival celebrates the richness of American Sign Language and deaf culture with storytelling, visual art, and poetry for children and adults. Teachers and students are invited to expand their horizons and learn about the heritage, culture and language of a unique culture. The next DeaFestival is scheduled for Sept. 6, 1998, in Louisville. The commission also provides educational deaf culture presentations as well as information, referral and advocacy services.

Kentucky Humanities Council

206 E. Maxwell St.
Lexington, KY 40508
(606) 257-5932
http://www.uky.edu/~vgsmit00/khc/khc.htm

This private, nonprofit affiliate of the National Endowment for the Humanities has provided humanities education funding to cabinet agencies for 25 years. Most of the council’s services are for nonprofit programs targeting adults. Learn more by visiting the council’s site on the World Wide Web. Contact Kathleen Pool (e-mail: kspool0@pop.uky.edu).

Kentucky Shakespeare Festival

Curt Tofteland
1114 S. Third St.
Louisville, KY 40203
(502) 583-8738

The annual DeaFestival celebrates the richness of American Sign Language and deaf culture with storytelling, visual art, and poetry for children and adults. Teachers and students are invited to expand their horizons and learn about the heritage, culture and language of a unique culture. The next DeaFestival is scheduled for Sept. 6, 1998, in Louisville. The commission also provides educational deaf culture presentations as well as information, referral and advocacy services.

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Kentucky Educational Television will offer the following teacher professional development seminars on its Star Channels network during November and December. Schools or districts may subscribe to single programs or the year’s entire schedule. For more information about how to subscribe, call KET Professional Development toll free at (800) 432-0951. For additional KET professional development information, go to KET’s home page on the World Wide Web (www.ket.org).

**NOVEMBER**

**Writing**
- Writing Portfolio in the Latin Classroom
- Technical Writing: Science, Math, Social Studies (high school)
- Primary Writing: Building the Foundation the Write Way

**Arts and Humanities**
- Arts and Humanities: Integration, Assessment and Course Development — Seminar 1 of 4 (middle and high school)
- Developing Connections Using “Different Ways of Knowing”
- VideoWorks: School Video Production Systems

**Science**
- Improving Middle School Science Scores
- Technical Writing: Science

**Social Studies**
- Distinguished Speakers: Dr. Raymond Betts on “The West”
- Technical Writing: Social Studies

**Foreign Language**
- National Standards for Foreign Language Learning: Strategies, Technologies and Assessment, P-12 (part 1 of 3)

**DECEMBER**

**Writing**
- A Year in a High School Writing Classroom (part 2 of 3)
- Writing Portfolio Analysis

**Arts and Humanities**
- Arts and Humanities: Integration, Assessment, and Course Development, Seminar 2 of 4 — middle and high school

**Mathematics**
- Developing Math Reasoning: Middle School

**Miscellaneous**
- Developing Connections Using “Different Ways of Knowing”
- VideoWorks: School Video Production Systems

**FREE TO SCHOOLS FROM KET**
- Mathematics: What’s the Big Idea? (K-8) — Nov. 7, 14, 21; Dec. 5, 12, 15, 16, 17; all at 3:30-5:30 p.m. ET (2:30 - 4:30 p.m. CT) on Star Channel 709 only

**Free-of-Charge Programs from the Department of Education**

You can view or copy, free of charge, Kentucky Department of Education professional development programs broadcast on KET Star Channels. Scheduled for October is this series on primary education:
- Oct. 17 — Continuous Progress Through Parent Involvement; Continuous Progress Through Professional Teamwork
- Oct. 20 — Continuous Progress Through Authentic Assessment and Developmentally Appropriate Practices

All programs are scheduled to begin at 4 p.m. ET (3 p.m. CT) on KET Star Channels 709 and 710. Video copies are available for $15 each from Windy Newton at the Department of Education.E-mail wnewton@kde.state.ky.us or phone (502) 564-3421.

**Principal of the Year Nominations Due by Dec. 3**

The Department of Education, The Kroger Company and Campbell Sales Co. invite nominations for this year’s Kentucky Principal of the Year recognition program. Nominations may come from students, parents, educators and representatives of business. Principals may apply on their own behalf. Judges will base their selections on four criteria: innovation and management, communication skills, school management and leadership.

Nomination/application packets have been mailed to all district superintendents and are available at Kroger customer service counters. Nominations are due by Dec. 3. For additional packets or information about the program, call Kay Anne Wilborn at (502) 564-3421 or (800) 533-5372. Address e-mail inquiries to Anne Wilborn at (502) 564-3421 or (800) 533-5372. Address e-mail inquiries to

**Conference to Give Schools a Closer Look at Instructional Practices That Get Results**

A Department of Education team is screening commercially marketed instructional materials and will showcase to Kentucky teachers and administrators those few, strong programs that meet the team’s parameters. The team’s project is three-pronged:
- Identify elementary, middle and high school programs that show evidence of high success in student performance in all core content areas.
- Work with providers to ensure programs are aligned with the state’s academic goals and expectations.
- Showcase the programs on Nov. 24 and 25 during sessions for teachers and administrators at Commonwealth Convention Center in Louisville.

The intent is to give educators a look at consistently proven lessons and classroom practice in specific core content areas. For more information, contact Linda Littlejohn at (502) 254-7799 or via e-mail at llittlejohn@kde.state.ky.us on the Internet.
Teleconference to Highlight Careers in Construction

A national teleconference for middle and high school students will provide information on career paths in construction. Professionals from Kentucky's construction industry and nationally-recognized educators will make presentations and interact with viewers. The event is sponsored by the Associated General Contractors of Kentucky and the National Center for Construction Education and Research.

- Live broadcast: 1 p.m. ET on Oct. 16; KET Star Channel 708
- Taped rebroadcast: 10 p.m. ET on Oct. 21 and Oct. 23; Star Channel 710

CONTACT: Associated General Contractors, (800) 458-0215

Teen Pregnancy Summit Scheduled

The Governor’s Summit on Teen Pregnancy Prevention is set for Oct. 30 at the Galt House in Louisville. The summit is sponsored by the Governor’s Office, the Cabinet for Families and Children’s Department of Health and the Kentucky Department of Education. Sessions will highlight prevention strategies and ideas for local community involvement. Featured speakers include Gov. Paul Patton and Henry Foster, senior advisor to President Bill Clinton.

CONTACT: Beverly Persley, Director, Division of Student/Family Support Services, 500 Mero St., Frankfort, KY 40601; (502) 564-3678; bpersley@kde.state.ky.us

Portfolio Scoring Training Offered

Training for scoring mathematics portfolios is available this fall to teachers other than mathematics portfolio cluster leaders. Principals are receiving letters inviting one teacher from each school to attend one of the following sessions (listed by mathematics portfolio regions):

- Region 1: Murray, Oct. 27 (elementary) and 28 (middle/high)
- Region 2: Cave City, Oct. 13 (elementary) and 14 (middle/high)
- Region 3: to be announced
- Region 4: Florence, Oct. 6 (elementary) and 7 (middle/high)
- Regions 5 and 9: Lexington, Nov. 18 (elementary) and 19 (middle/high)
- Region 6: Somerset, Oct. 16 (elementary) and 17 (middle/high)
- Region 7: Greenbo Lake State Park, Nov. 10 (middle/high) and 11 (elementary)
- Region 8: Jenny Wiley State Park, Nov. 10 (elementary) and 11 (middle/high)

CONTACT: Debbie Waggoner, 18th Floor, 500 Mero St., Frankfort, KY 40601; (502) 564-9855; dwaggoner@kde.state.ky.us

KETC ’98 Could Be ‘Best Yet’

Organizers of the Kentucky Education Technology Conference (KETC), set for March 5-8 in Louisville, say the conference is shaping up to be the best yet. They urge teachers from all grades and subjects to participate. The conference also will feature activities for students of all ages. For details, read future issues of Kentucky Teacher and visit the Department of Education’s Web site at http://www.kde.state.ky.us on the Internet.

CONTACT: Lydia Wells Sledge, Director, Division of Customer Support Services, 19th Floor, 500 Mero St., Frankfort, KY 40601; (502) 564-7168; lsledge@kde.state.ky.us

$12,000 Grants Available for Science-Math Teams

The GTE Foundation annually awards $12,000 Growth Initiatives for Teachers grants to 60 math-science teaching teams. To be eligible, a team must be one math teacher and one science teacher from the same school who plan to integrate the two by using technology in an innovative way. Applications for this year’s grants are due Jan. 16, 1998. To request an application, e-mail your name, job title and complete postal mailing address to gift@gte.com or phone (800) 315-5010.

How Does Your Garden Grow?

The National Gardening Association is receiving applications for its 15th annual Youth Garden Grants Program, which will award 300 grants to schools and youth programs for the 1998 growing season. Programs involving at least 15 children between the ages of 3 and 18 are eligible. For information and an application, visit http://www.garden.org on the World Wide Web; call (800) 538-7476; or write Garden Grants Dept. PS, National Gardening Association, 180 Flynn Ave., Burlington, VT 05401. The deadline for completed applications is Nov. 15.
Kentucky Teacher Now on the Web

The publication you’re holding in your hands is now available on the World Wide Web. Readers around the world now have access to Kentucky Teacher.

That means the potential audience is virtually unlimited. Students, parents, business leaders, political decision makers, educators in other states and nations — anybody with Web access and an interest in innovation in public education can read Kentucky Teacher.

Still, the target audience for this publication will continue to be Kentucky’s classroom teachers. All articles have the same main goal: to support teachers as professionals and offer information they can use to guide students to higher levels of learning.

To reach the electronic editions of Kentucky Teacher:
• Go to the Department of Education home page (http://www.kde.state.ky.us).
• Click on Kentucky Teacher.
• Choose text-only or “full graphic” version.
• Read and enjoy!

Your suggestions for the print or electronic version of this publication are welcome. E-mail kyteach@kde.state.ky.us; phone Fran Salyers at (502) 564-3421; or mail comments to Kentucky Teacher, Kentucky Department of Education, 500 Mero St., Frankfort, KY 40601.

Coming soon: A new, easier-to-use structure for the Department of Education Web page.

INSIDE . . .

How — And Why — to Integrate the Arts Into Instruction . . . . . . . . . . . . . . . . . . . . . . . . . . 2, 5-13
Going Underground to Learn . . . . . . . . . . . . . . . . . . . 1
Kentucky Education News . . . . . . . . . . . . . . . . . . . . . 3
Web Publishing With a Purpose . . . . . . . . . . . . . . . . . 4
And More!

DISCOVERING PATTERNS IN NATURE — Chase Schnatter, a primary student at Anchorage School (Anchorage Independent), shows art instructor Ellen Sears the patterns he recreated in clay after observing them in nature. Sears and her husband Tim, a primary teacher at the school, work together to make the arts a tool for teaching all disciplines. (See Page 6.)